

Product datasheet for **RC224647**

KCNMB3 (NM_014407) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KCNMB3 (NM_014407) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KCNMB3
Synonyms:	BKBETA3; HBETA3; K(VCA)BETA-3; KCNMB2; KCNMBL; SLO-BETA-3; SLOBETA3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC224647 representing NM_014407 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGACTTTTCACCAAGCTCTGAACTGGGATTTTCATTTTGTTCATTTCATCCTGCTCACGAGACACAGGA
CAGCCTTTCCTGCCTCAGGGAAGAAGAGAGAGACAGACTACAGTGATGGAGACCCACTAGATGTGCACAA
GAGGCTGCCATCCAGTGTGGAGAGACCAGCCGTGATGCTGGGGTTTGCCATGATGGCTTCTCAGTC
CTAATGTTCTTCTTGCTCGGAACAACCATTCTAAAGCCTTTTATGCTCAGCATTGAGAGAGAAGAATCGA
CCTGCACTGCCATCCACACAGATATCATGGACGACTGGCTGGACTGTGCCTTACCTGTGGTGTGCACTG
CCACGGTCAGGGGAAGTACCCGTGCTTTCAGGTGTTTGTGAACCTCAGCCATCCAGGTGAGAAAGCTCTC
CTACATTATAATGAAGAGGCTGTCCAGATAAATCCCAAGTGCTTTTACACACCTAAGTGCCACCAAGATA
GAAATGATTTGCTCAACAGTGTCTGGACATAAAAGAATTCTTCGATCACAAAAATGGAACCCCTTTTC
ATGCTTACAGTCCAGCCAGCCAATCTGAAGATGTCAATCTTATAAAAAAGTATGACCAATGGCTATC
TTCCACTGTTTATTTGGCCTTCACTGACTCTGCTAGGTGGTGCCTGATTGTTGGCATGGTGAGATTAA
CACAAACCTGTCCTTACTGTGTGAAAAATATAGCACTGTAGTCAGAGATGAGGTAGGTGAAAAAGTACC
TTATATAGAACAGCATCAGTTCAAACCTGTGCATTATGAGGAGGAGCAAAGGAAGAGCAGAGAAATCT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC224647 representing NM_014407
Red=Cloning site **Green**=Tags(s)

MDFSPSSELGFHFVAFILLTRHRTAFPASGKKRETDYSDGDPLDVHKRLPSSAGEDRAVMLGFAMMGFSV
 LMFFLLGTTILKPFMLS IQREESTCTAIHTDIMDDWL DCAFTCGVHCHGQKYPCLQVFVNL SHPGQKAL
 LHYNEEA VQINPKCFYTPKCHQDRNDLLNSALDIKEFFDHKNGTPF SCFYSPASQSEVILIKKYDQMAI
 FHCLF WPSLTL LGGALIVGMVRLTQHL SLLCEKYSTVVRDEVGGKVPYIEQHFKLCIMRRSKGRAEKS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6507_d12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_014407

ORF Size: 837 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_014407.3](#), [NP_055222.3](#)

RefSeq Size: 1492 bp

RefSeq ORF: 840 bp

Locus ID: 27094

UniProt ID: [Q9NPA1](#)

Cytogenetics: 3q26.32

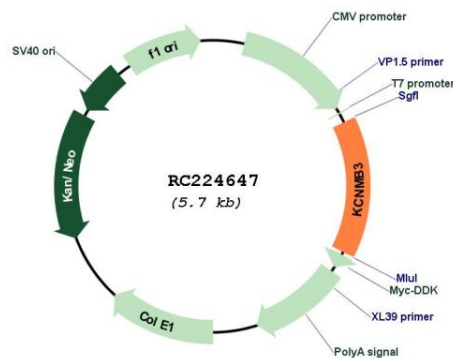
Protein Families: Druggable Genome, Ion Channels: Other, Transmembrane

Protein Pathways: Vascular smooth muscle contraction

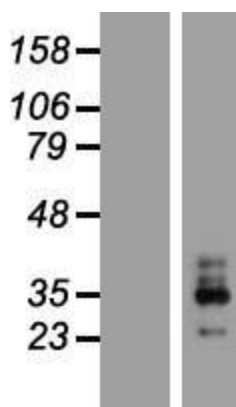
MW: 31.4 kDa

Gene Summary: MaxiK channels are large conductance, voltage and calcium-sensitive potassium channels which are fundamental to the control of smooth muscle tone and neuronal excitability. MaxiK channels can be formed by 2 subunits: the pore-forming alpha subunit and the modulatory beta subunit. The protein encoded by this gene is an auxiliary beta subunit which may partially inactivate or slightly decrease the activation time of MaxiK alpha subunit currents. Alternative splicing results in multiple transcript variants. A related pseudogene has been identified on chromosome 22. [provided by RefSeq, Jul 2009]

Product images:



Circular map for RC224647



Western blot validation of overexpression lysate (Cat# [LY415300]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224647 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).